RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:

Source:

Date Processed by STIC:

ENTERED



IFWP

RAW SEQUENCE LISTINGPATENT APPLICATION: **US/10/534,128**DATE: 08/14/2006

TIME: 12:28:12

Input Set : E:\SEQ LISTING.txt

```
1 <110> APPLICANT: KOREA CHUNGANG EDUCATIONAL FOUNDATION
      3 <120> TITLE OF INVENTION: Plant seed-specific expression promoter derived
from sesame and
             seed-specific expression vector comprising the promoter
      6 <130> FILE REFERENCE: Gn14288
C--> 8 <140> CURRENT APPLICATION NUMBER: US/10/534,128
C--> 8 <141> CURRENT FILING DATE: 2005-05-06
     8 <150> PRIOR APPLICATION NUMBER: KR 10-2002-0069589
     9 <151> PRIOR FILING DATE: 2002-11-11
     11 <160> NUMBER OF SEO ID NOS: 3
     13 <170> SOFTWARE: KopatentIn 1.71
     15 <210> SEQ ID NO: 1
     16 <211> LENGTH: 3102
     17 <212> TYPE: DNA
     18 <213> ORGANISM: Sesamum indicum
     20 <220> FEATURE:
    21 <221> NAME/KEY: 5'UTR
    22 <222> LOCATION: (1)..(1746)
    24 <220> FEATURE:
    25 <221> NAME/KEY: intron
     26 <222> LOCATION: (149)..(1722)
     28 <220> FEATURE:
     29 <221> NAME/KEY: 3'UTR
    30 <222> LOCATION: (2899)..(3102)
    32 <400> SEQUENCE: 1
    33
aacgccactc aaatatttca ccaccaccac caccagaaca ttcagaaaca agaaataaac
                                                                          60
acacacaca tataaaacag ttcttgcgaa agaaggaaag cgcttccgca gaagtgcttt
                                                                         120
    37
cacgcgattt ctccttccaa gttttcaggt aacgtgcccc cttttctctt ctcttctatt
                                                                         180
ctcttttctc ataattcatg atcaatcttt gagtattttg gtgtttgtgt gtctcaagaa
                                                                         240
aaccgcattt ttattttctt gcaatggtgt ctttatttcc tgtcgttttt ttcaqctatt
                                                                         300
aatgttettt tgatgtagat gaggtttaat egtatgttet tgagetgeat tacetgatga
                                                                         360
ttcatggatc tgaggaatgt atqcqatttt ttatttttqt tttatttttt qqtqqqcttt
                                                                         420
cccaagaaga atctatttgg ggttattctt gtgtggtttg gtgcaaatct ttggatttta
                                                                         480
cgcagtattg gtgtctggac cacatgattg tgtcatttat atttggattt tgtctttatc
                                                                         540
    51
```

| tttgtatgca 53 | tgtgggatgc | aggaagaaaa | aactgtggta | aatgtctttg | aagagattga | 600 |
|------------------|------------|------------|------------|------------|------------|------|
| tttagcatat 55 | atacaaggtt | gcctgggctt | cagttttgat | gattttgatg | tacattgtgg | 660 |
| agatttgatg 57 | ggttgcatgt | ggctcaaatc | ttcttgtaag | atttgttttt | tgtccaaaaa | 720 |
| atttgggatt 59 | tttccacttt | tattgaacag | tagatctttt | cctgtttcaa | cccaaaagtt | 780 |
| atttcggttt 61 | gaagttttac | atcatagata | taattagtaa | taaatttcgg | ttaggtccgt | 840 |
| aaagaatcat 63 | taattacatc | aattaatatt | gtttaatgta | caaaaagagg | gaatttatgg | 900 |
| tgatatctat 65 | gaagccatgc | tatgcctggc | tggaattccg | tcgatgaaaa | agacagattc | 960 |
| cggtgtgtgg 67 | tagatttcac | tgttagtgaa | taccccactt | caaagaacgg | tgctgattca | 1020 |
| actgctctag 69 | tcctcaggat | tttagtacta | cttgtttgct | gtttggaaca | catggctgaa | 1080 |
| aataaatgtc | tgcttttcga | ccttggcgct | tagagaattt | actaccacat | ctcattttta | 1140 |

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| 71 | | | | | | |
|-------------------|------------|------------|------------|------------|------------|--------|
| | gatgatttct | gctgtcagaa | tgaatgaatt | gactaagagc | aactcggtta | 1200 |
| | aattggttgt | ttgtgattgt | tgttgatttg | tttttgtcgt | tatgatcttt | 1260 |
| tgaggtattc 77 | gccatacaat | gctgatacta | gtcgttgtga | ttttccggta | tatgtatttg | 1320 |
| tgacgtatcg 79 | ttctgtagtt | tggtaactaa | tagaatgcat | gtggtggtaa | ctaatagaat | 1380 |
| gcatgttgta 81 | gtaacaaatg | cacattgtag | attctcgtgg | atttttcggg | tgttcgttac | 1440 |
| cagcacattg 83 | ccgattctgg | tatgattttt | gtcgtgttca | ttgtttagtt | gcctttcttg | 1500 |
| gctgccacta 85 | tttcattgag | aatgtaggac | gttgttcgat | gcaaaagaac | ttttgccgac | 1560 |
| tagaatgcag 87 | gtggcaatct | ggaatctcct | attatgggag | gaactactgt | aattgggagg | 1620 |
| ttttgattca 89 | gacaatctag | taacagtcta | gaagctactt | tgcctttaaa | tctcaatgac | 1680 |
| cttaaacgcc 91 | atgatggaga | catttgaatc | catgttttgc | aggtaaattg | ggggcggctt | 1740 |
| gacaaaatgg 93 | gagccggagg | acgcatgtct | gatccaacaa | cgaaagacga | acaaaagaag | 1800 |
| aaccccctcc 95 | aacgggtgcc | ttacgcaaag | cctccattca | cactcggtga | catcaagaag | 1860 |
| gccattccac 97 | cacactgctt | cgagagatcc | gtcagccgtt | cgttctccta | tgtcgtttac | 1920 |
| gatctcgtca 99 | ttgttttcct | tctctactac | attgcgactt | cttacttcca | tctgctgcca | 1980 |
| tccccatact 101 | gctacctagc | ttggcccatt | tactgggctg | tacaaggctg | cgtttgcacc | 2040 |
| ggaatctggg 103 | tcattgccca | tgaatgtggc | caccatgcat | tcagcgatta | ccagtggctt | 2100 |
| gacgacacag 105 | ttggcctcat | cctgcactct | gccctgctcg | tgccctattt | ctcatggaaa | 2160 |
| tacagccacc 107 | gccgccacca | ctccaacact | ggatcccttg | agcgtgacga | agtcttcgtc | 2220 |
| ccaaagccaa 109 | aatccagagt | ctcgtggtac | tccaaatact | tgaacaatcc | acttggcaga | 2280 |
| gtcatcacac 111 | ttgtggttac | tcttactctc | ggttggccţc | tatacttgct | gtttaatgtc | . 2340 |
| tctggcaggc 113 | cttacaaccg | ttttgcatgc | cactttgacc | catatggtcc | aatatataat | 2400 |
| gaccgtgaga 115 | gacttcaaat | cttcatctcc | gatgctggta | taattgctgc | tgtatgtgtg | 2460 |
| ctttatcgtg 117 | ttgctttggt | caaagggttg | gcttggctgg | tatgtgttta | tggggtaccg | 2520 |
| ttactcattg 119 | tcaacggttt | ccttgttttg | atcacattcc | ttcagcacac | tcacccttcg | 2580 |
| ttgccgcact 121 | atgattcttc | cgagtgggac | tggctaaggg | gagctcttgc | aactgtcgac | 2640 |
| agagattatg 123 | gggtgctaaa | taaggtgttc | cataacatca | cagatacgca | cgtgactcac | 2700 |

| | caccttttc 125 | ct ca | aacga | atgc | c aca | atta | ccat | gcaa | atgga | agg | caact | taag | gc a | atca | agcc | C | 2 | 2760 |
|------------------------------------------------------------------------------------------------------------|------------------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------|
| | atactgggd | cc a | gtati | tatca | a gti | ttga | tgga | acc | ccgti | ttt . | acaa | ggcg | at g | tgga | ggga | 3 | 2 | 2820 |
| | gcaaaggaa 129 | at g | tctg | atgt | cga | agcc | agac | gaga | agta | ctc | caga | caag | gg t | gtati | tctg | 3 | 2 | 2880 |
| | tacaagaad 131 | ca ag | gttc | gaag | g cc | gaat | aaca | tgt | ggtta | agt (| gaaa | atgg | cg t | cttc | ttati | t | 2 | 2940 |
| | ttgtcctat | g ga | agato | ggagg | g aad | catca | atca | tgti | tttci | ttt · | ttcti | tctt | at a | agat | gcgt | C | 3 | 3000 |
| | ctttgttag | gt gi | tatto | ctcto | g cat | tgta | ataa | aata | aaact | ttc | tacc | cgaa | ac c | ttgt | ctgt | 3 | 3 | 3060 |
| ctggtcggat tctagttctg caataaattg 138 <210> SEQ ID NO: 2 139 <211> LENGTH: 383 140 <212> TYPE: PRT | | | | | | tcaa | agtti | tag ' | tg | | | | | | | 3102 | | |
| | | | | | | | amum | ind | icum | | | | | | | | | |
| | | | | EQUE | | | | | | | | | | | | | | |
| | 144 145 | | Gly | Ala | Gly | Gly 5 | Arg | Met | Ser | Asp | Pro 10 | Thr | Thr | Lys | Asp | Glu 15 | Gln | |
| | 147 148 | Lys | Lys | Asn | Pro 20 | Leu | Gln | Arg | Val | Pro 25 | Tyr | Ala | Lys | Pro | Pro 30 | Phe | Thr | |
| | 150 151 | Leu | Gly | Asp 35 | Ile | Lys | Lys | Ala | Ile 40 | Pro | Pro | His | Cys | Phe 45 | Glu | Arg | Ser | |
| | 153 154 | Val | Ser 50 | Arg | Ser | Phe | Ser | Tyr 55 | Val | Val | Tyr | Asp | Leu 60 | Val | Ile | Val | Phe | |
| | 156 157 | Leu 65 | Leu | Tyr | Tyr | Ile | Ala 70 | Thr | Ser | Tyr | Phe | His 75 | Leu | Leu | Pro | Ser | Pro 80 | |
| | 159 | Tyr | Cys | Tyr | Leu | Ala | Trp | Pro | Ile | Tyr | Trp | Ala | Val | Gln | Gly | Cys | Val | |

RAW SEQUENCE LISTING DATE: 08/14/2006
PATENT APPLICATION: US/10/534,128 TIME: 12:28:12

Input Set : E:\SEQ LISTING.txt

| 1.00 | | | | | 0.5 | | | | | 00 | | | | | 0.5 | | |
|-----------|-------|-------|------------|--------|-------|----------------|------------|--------|-----------|----------------|--------|-------|------|----------|-------|------------|-----|
| 160 | | m1 | a 1 | -1. | 85 | | | | . | 90 | _ | ~3 | | • | 95 | _, | |
| | | Thr | GIY | | Trp | vaı | шe | Ата | | GIU | Cys | GIĀ | His | | Ala | Pne | |
| 163 | | _ | | 100 | | _ | _ | _ | 105 | | | | | 110 | | | |
| | | Asp | | Gln | Trp | Leu | Asp | | Thr | Val | Gly | Leu | Ile | Leu | His | Ser | |
| 166 | | | 115 | | | | | 120 | | | | | 125 | | | | |
| 168 | Ala | Leu | Leu | Val | Pro | \mathtt{Tyr} | Phe | Ser | Trp | Lys | Tyr | Ser | His | Arg | Arg | His | |
| 169 | | 130 | | | | | 135 | | | | | 140 | | | | | |
| 171 | His | Ser | Asn | Thr | Gly | Ser | Leu | Glu | Arg | Asp | Glu | Val | Phe | Val | Pro | Lys | |
| 172 | 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| 174 | Pro | Lys | Ser | Arg | Val | Ser | Trp | Tyr | Ser | Lys | Tyr | Leu | Asn | Asn | Pro | Leu | |
| 175 | | | | | 165 | | | | | 170 | _ | | | | 175 | | |
| 177 | Gly | Arg | Val | Ile | Thr | Leu | Val | Val | Thr | Leu | Thr | Leu | Gly | Trp | Pro | Leu | |
| 178 | | | | 180 | | | | | 185 | | | | _ | 190 | | | |
| 180 | Tyr | Leu | Leu | Phe | Asn | Val | Ser | Gly | Arg | Pro | Tyr | Asn | Arq | Phe | Ala | Cys | |
| 181 | | | 195 | | | | | 200 | _ | | • | | 205 | | | - | |
| 183 | His | Phe | Asp | Pro | Tyr | Glv | Pro | Ile | Tvr | Asn | Asp | Ara | Glu | Ara | Leu | Gln | |
| 184 | | 210 | • | | - | - 4 | 215 | | - 4 - | | | 220 | | | | | |
| | | | Ile | Ser | Asp | Ala | | Ile | Ile | Ala | Ala | | Cvs | Val | Len | Tvr | |
| | 225 | | | | E | 230 | 4-1 | | | | 235 | | 0,10 | | | 240 | |
| | | Val | Δla | Len | Val | | Glv | T.e.11 | Δla | Trn | | val | Cvs | Val | Tur | | |
| 190 | 5 | | | | 245 | _,5 | 0-7 | шец | | 250 | Dea | val | Cys | vai | 255 | CLY | |
| | Val | Pro | T.e.11 | T.e.11 | Ile | Val | Δen | Glv | Dhe | | Wal | T.011 | Tl_ | Thr | | T.Ou | |
| 193 | vai | 110 | шец | 260 | 110 | vai | HOII | Gry | 265 | пеп | vair | пеп | 116 | 270 | rne | пец | |
| | Gln | шic | Thr | | Pro | Sor | Len | Dro | | Ттг | 7 an | Cor | Cor | | Trn | 7 cm | |
| 196 | GIII | 1113 | 275 | 1113 | FIO | SEL | пец | 280 | птэ | ıyı | Asp | Ser | 285 | Giu | пр | ASP | |
| | Term | T 011 | | C1 | Ala | T 011 | 77. | | 1707 | 7 ~~ | 7 ~~~ | 7 ~~ | | G1 | 7707 | T | |
| | | | Arg | GIY | Ата | Leu | | 1111 | vai | Asp | Arg | _ | TYL | GIY | vai | Leu | |
| 199 | | 290 | *** 1 | Dh a | *** - | 7 | 295 | m1 | 3 | ml | TT ! _ | 300 | m1 | *** | ••• | | |
| | | ьуѕ | vai | Pne | His | | тте | Thr | Asp | Thr | | vaı | Thr | HIS | Hls | | |
| | 305 | | m1 | 34-4 | D | 310 | | ••• | | | 315 | | _, | _ | | 320 | |
| | Pne | ser | Thr | мес | Pro | His | Tyr | HIS | Ата | | GIU | Ата | Thr | гÀг | | Пе | |
| 205 | _ | _ | 7 | _ | 325 | ~ 3 | | _ | ~-7 | 330 | _ | | | _ | 335 | _ | |
| | ьys | Pro | тте | | Gly | GIn | Tyr | Tyr | | Pne | Asp | GIY | Thr | | Phe | Tyr | |
| 208 | _ | | | 340 | _ | | | _ | 345 | _ | _ | _ | | 350 | _ | _ | |
| | ГÀЗ | Ala | | Trp | Arg | GIu | Ala | _ | GIu | Cys | Leu | Tyr | | Glu | Pro | Asp | |
| 211 | | | 355 | | | | | 360 | | | | | 365 | | | | |
| | Glu | | Thr | Pro | Asp | Lys | _ | Val | Phe | \mathtt{Trp} | Tyr | _ | Asn | Lys | Phe | | |
| 214 | | 370 | | | | | 375 | | | | | 380 | | | | | |
| 219 | <210 | O> SI | EQ II | ОИО | : 3 | | | | | | | | | | | | |
| 220 | <211 | L> LI | ENGTI | I: 66 | 50 | | | | | | | | | | | | |
| 221 | <212 | 2> T | PE: | DNA | | | | | | | | | | | | | |
| | | | | | Sesa | amum | indi | icum | | | | | | | | | |
| | <220 | | | | | | | | | | | | | | | | |
| | | | | | pro | | | | | | | | | | | | |
| | | | | | (1). | | | | | | | | | | | | |
| 227 | <223 | 3> 07 | THER | INF | ORMAT | CION: | pro | omote | er of | mic | cros | omal | olei | lc ac | cid d | lesatur | ase |
| coding ge | | | | | | | | | | | | | | | | | |
| 230 | <400 |)> SE | EQUE | VCE: | 3 | | | | | | | | | | | | |
| 231 | | | | | | | | | | | | | | | | | |
| catatgtga | aa at | gtaa | atgga | a aaa | atgco | gaca | agaa | attq | aa t | agac | gaaaa | it co | aatt | tgca | ì | 6 | 0 |
| 233 | | - | | | | - | | | | - | - | | | <i>-</i> | | | |
| gagattaca | at qa | aaaa | gaatt | : tat | acaa | aata | qcat | atat | at | ittaa | aato | a aa | taac | acat | ; | 12 | 0 |
| 235 | J - | - | | J . | | | J | | - | | | , | | , | | - - | |
| gccacatta | at at | ggaa | taaa | aaa | agaca | att | tact | taaa | at t | aatt | atac | ra at | aaat | atat | _ | 18 | 0 |
| J | | 55.50 | | | | | - 500 | -350 | | | | , | | 2-2 | - | _0 | - |

RAW SEQUENCE LISTING DATE: 08/14/2006
PATENT APPLICATION: US/10/534,128 TIME: 12:28:12

Input Set : E:\SEQ LISTING.txt

| | | _ | | | | |
|-------------------|------------|------------|------------|------------|------------|-----|
| 237 | | | | | | |
| | atgtgattaa | tcacttttt | tgaattgtac | atctatcaca | tgacaagttc | 240 |
| 239 | | | | | | |
| attatatttg 241 | acatataatt | tgtttatgtc | tagtcaagcc | taattaaatt | tctcggaaag | 300 |
| cacaaaattt 243 | ttttgtccta | accaggtttg | aacaaccaaa | caaatcacaa | agcaggtgta | 360 |
| tcgcacttgc 245 | gatgtgatcg | gtcacttttt | ctaaattgta | catcattcac | acgacaactg | 420 |
| tattgtgctc 247 | caagttcaat | tgagtgcggt | tggagctata | atttccttga | acacacaatg | 480 |
| tggaatgtgc 249 | acactccatg | tgggccaatg | agcggatgac | acgtggcggg | caacttacct | 540 |
| cgttacgttg 251 | aggcatgcat | gaaaggggga | tctcttgagg | tggaggggtg | ggggcggggg | 600 |
| ttgggggggg 253 | gcccctcctc | agacaggtct | atatttatga | gacctcgtaa | ggcagaacgc | 660 |
| | | | • | | | 660 |

VERIFICATION SUMMARY

DATE: 08/14/2006

PATENT APPLICATION: US/10/534,128

TIME: 12:28:13

Input Set : E:\SEQ LISTING.txt

Output Set: N:\CRF4\08142006\J534128.raw

L:8 M:270 C: Current Application Number differs, Replaced Current Application No L:8 M:271 C: Current Filing Date differs, Replaced Current Filing Date